Article, May 1, 1885

2-3-80 Deaf 36 Copied from page 354 of Science for May 1, 1885, being an excerpt from the Editor's report of the proceedings of “The April Meeting of the National Academy of Sciences.”

“Perhaps the greatest public interest attached to the two papers of Dr. Graham Bell, given on the last day of the session, one on the possibility, while at sea in a fog, of detecting by means of echoes the proximity of dangerous objects. Mr. Della Torre and Mr. Bell had experimented by means of a gun and a receiving-trumpet, and had obtained echoes from passing vessels at a distance of from a quarter of a mile to a mile, according to their size. The other showed the results of some experiments he had made on the audition of school-children of Washington. 2-3-80 He exhibited an audiometer he had devised, in which two flat cells of insulated wire were so adjusted as to admit of separation on a graduated scale measuring the distance between their centres. An electrical current, produced by the rotation of a Siemens armature between the poles of a permanent magnet, is passed through one of the coils, and is rapidly interrupted by the rotation of a disk, a telephone being attached to the other. The intensity of the sound produced being dependent upon the intensity of the current induced in the coil to which the telephone is attached, and this upon the distance between the coils, a ready measurement of audition is obtained. The use of this instrument proved that ten per cent of the more than seven hundred pupils examined with the assistance of Mr. H. G. Rogers were hard of hearing (in their best ear), and seven per cent had very acute powers; the general range of audition being measured on the scale by the separation of the disks to a distance of from fifty to eighty centimetres, while the total range was from twenty to ninety centimetres. It is known, on the other hand, that in some institutions for the deaf as many as fifteen per cent are merely hard of hearing.”